



Graduate Student Orientation

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Fall 2009
<http://cs.gmu.edu>



Meeting Agenda

- Rules pertaining to all programs
- Masters Degree Programs
 - MS Computer Science
 - MS Information Systems
 - MS Information Security and Assurance
 - MS Software Engineering
- PhD Programs
- Graduate Certificate Programs
- Plan of Study Forms
- Miscellaneous Information
- Individual Advising



Graduate Programs

- **Masters Programs (30 credit hours)**
 - MS Computer Science (MS CS)
 - MS Information Systems (MSIS)
 - MS Information Security & Assurance (MS-ISA)
 - MS Software Engineering (MS-SWE)
- **Doctoral Programs (72 credit hours)**
 - PhD in Computer Science
 - PhD in IT - Tracks
 - Information Systems,
 - Software Engineering,
 - Information Security and Assurance
- **Graduate Certificate Programs (15 credit hours)**

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Rules Pertaining to MS programs

- MS program consists of 10 courses (30 credit hours)
- To graduate, GPA must be 3.0 or higher (B average)
- Maximum of two C grades allowed for MS degree
- Must complete all foundation courses you need before taking core curriculum courses
- All MS programs have a thesis option (6 credit hours)

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Foundation courses

- Ensure adequate background for graduate studies
- Do not count for graduate credit
- Provide basic undergraduate CS knowledge you need for graduate program
- Must be completed with grade of B or better
- You may need to take up to 4 foundation courses, depending on your background
- You can test out of some or all of the foundation courses

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MS Computer Science

- Mission:
 - To combine a sound foundation in computer science with concentrated knowledge in the advanced areas.
- Foundation Requirements (not for graduate credit)
 - Discrete Math (Math 125)
 - Data Structures (CS 310)
 - Formal Methods and Models (CS 330)
 - Computer Systems Architecture (CS 465)

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MS Computer Science

- MS CS consists of
 - Core (required) course,
 - Basic courses – no graduate prerequisites
 - Advanced courses – have at least 1 graduate prerequisite
- CS 583 (Algorithms) is a required course
- At least five courses (15 credit hours)
 - Must qualify as "advanced" courses
 - Must be taken from three different areas of CS
- Students must take basic courses if they need prerequisites for advanced courses
 - Basic courses can be skipped if equivalent undergraduate courses have been taken
 - Permission must be obtained from Graduate Coordinator and/or academic advisors

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MS Computer Science

Courses are divided into 5 areas (clustered by similarity):

- Theoretical CS
 - Basic course: CS 583 (Algorithms)
- Systems & Networks (includes ISA courses)
 - Basic courses: CS 555 (Networks), CS 571 (OS), ISA 562 (Information Security Theory and Practice)
- Programming Languages & Software Engineering
 - Basic courses : CS 540 (Compilers), SWE 619 (Software Construction, SWE 620 (Software Requirements)
- Artificial Intelligence & Databases
 - Basic courses : CS 580 (Intro AI), INFS 614 (Database Mgmt)
- Visual Computing (graphics/imaging/vision)
 - No basic courses
- For more information:
 - <http://cs.gmu.edu/programs/masters/cs/MSCS-brochure.html>



Foundation Requirements for Other MS Programs

- Foundation Requirements for MSIS, MS-ISA, MS-SWE
 - INFS 501 Discrete and Logical Structures
 - SWE 510 Object-Oriented Programming with Java
 - INFS 515 Computer Organization
 - INFS 519 Program Design and Data Structures

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MSIS Program Information Systems

- **Mission:** Professional degree focusing on the technical, managerial and policy issues related to building and maintaining organizational information systems.
- **Four required courses:**
 - INFS 612 – Principles/Practices of Communication Networks
 - INFS 614 – Database Management
 - INFS 622 – Info Systems Analysis and Design
 - ISA 562 – Information Security Theory and Practice
- **Note:** Students taking the emphasis area and/or Graduate Certificate in Software Engineering should substitute SWE 620 for INFS 622 and also take SWE 621
- **Six elective courses:**
 - Grouped into Emphasis areas

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MSIS Program Emphasis Areas

- MSIS students take 6 electives from an emphasis area or may mix and match from different emphasis areas:
 - Database Management
 - Data Mining and Data Warehousing
 - Electronic Commerce
 - Software Engineering
 - Knowledge Management
 - Information Security and Assurance
- For more information:
<http://cs.gmu.edu/programs/masters/infs/>

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MS-ISA PROGRAM Information Security and Assurance

- **Mission:** Focus on the technical and management aspects of information security and examine ways to provide secure information processing systems
- **Four required courses:**
 - CS 571 – Operating Systems Theory & Practice
 - CS 555– Computer Communications & Networks
 - ISA 562 – Information Security Theory and Practice
 - ISA 563 – Fundamentals of Systems Programming
- **Six Electives**
 - Four ISA courses, see list
 - Two electives from pre-approved list.
- For more information:
<http://cs.gmu.edu/programs/masters/isa/index.html>

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MS-ISA PROGRAM Electives

- ISA 564 Security Laboratory
- ISA 650 Security Policy
- ISA 652 Security Audit and Compliance Testing
- ISA 656 Network Security
- ISA 673 Operating Systems Security
- ISA 674 Intrusion Detection
- ISA 681 Secure Software Design
- ISA 697 Topics in Information Security
- ISA 763 Security Protocol Analysis
- ISA 764 Security Experimentation
- ISA 765 Database & Distributed Systems Security
- ISA 767 Secure Electronic Commerce
- ISA 785 Research in Digital Forensics

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MS – SWE Program Software Engineering

- **Mission:** Provide students with specialized knowledge and experience in developing and modifying large, complex software systems.
- **Four required courses:**
 - SWE 619 – Object-Oriented Software Specification and Construction
 - SWE 621 – Software Modeling and Architectural Design
 - SWE 622 Distributed Software Engineering
 - SWE 637 Software Testing
- **Emphasis Area - 3 Courses**
- **Electives - 3 Courses**
 - See approved list of electives

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MS –SWE Program Emphasis Areas

- 3 Courses - (9 Credits) Required from Emphasis Area
 - Software Design
 - Software Assurance
 - Software Management
 - Web Applications

Note: With permission from the advisor, a MS-SWE student may choose not to take an emphasis area

- For more information:
<http://cs.gmu.edu/programs/masters/swe/index.html>

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Distance Education

- MS CS is offered online (10 courses)
 - Complete MS CS degree can be taken online
 - Some Software Engineering courses can be taken online
 - Students can mix and match distance/campus courses
 - Approx. 6-8 online courses taught each semester
 - Students within Commonwealth of Virginia can take MS CS through CGEP (Commonwealth Graduate Education Program)
 - Synchronous online delivery
 - Asynchronous course offerings in Summer semester
- For more information:
<http://www.cs.gmu.edu/programs/distance/>

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PhD Computer Science Program

- 72 credits (GMU requirement) post Bachelor's degree
- Up to 30 credits for an approved MS degree
- 42 credits post-Masters
 - CS 700 (3 credits) - Quantitative Methods and Experimental Design in Computer Science
 - 4 advanced graduate courses (12 credits)
 - 700 level and above
 - CS 800 (2 x 1 credits) - CS Colloquium
 - CS 990 (1 credit) - CS Proposal Preparation
 - At least 24 (12 + 12) CS 998 (proposal) and CS 999 (dissertation)

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Graduate Certificate Programs

- A Graduate Certificate program consists of five courses that provide specialized knowledge.
- Students may obtain up to 2 graduate certificates in conjunction with their MS studies.
- Average grade of B or better (Only 1 C grade allowed)
- Graduate Certificates offered by the CS Department:
 - Computer Networking, Biometrics, Intelligent Agents, Computer Games Technology;
 - Foundations of Information Systems, Data Mining, Database Management, Information Engineering, E-Commerce;
 - Information Security and Assurance;
 - Software Engineering, Software Architecture, and Web-based Software Engineering
 - For more information:
<http://cs.gmu.edu/programs/certificates/>

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M.S. Students Transferring from NON-DEGREE STATUS

Please note the following:

- **Only 12 hours of credit can be transferred into degree status. There will be no exceptions to this rule.**
- Classes must be successfully completed with a grade of B or better in order to be transferred
- It will be necessary for you to complete a masters graduate application and submit it to Graduate Admissions with
 - accompanying original transcripts,
 - 3 letters of recommendation,
 - a goal statement, work resume and
 - a \$60 check

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M.S. Students Transferring from PROVISIONAL STATUS

After completion of

- four courses at George Mason
- and/or completion of all foundation requirements.
- Students should apply to transfer from provisional status to degree status

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INTERNATIONAL STUDENTS

Students with F-1 or J-1 visas:

- Must be full-time students
 - At least 9 credit hours per semester
 - 6 credit hours for GTAs and GRAs
- Cannot switch to part-time status
- Must have degree status versus non-degree
- Must take foundation courses before core courses
- See Graduate Coordinator or Advisor if you have a problem

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Plan of Study Forms

- The plan of study forms are to be filled out by the student and submitted to the CS Dept office for approval during your first semester
- Designed to help students plan their course of study
 - Students have 6 years to complete the degree
 - Part-time students usually take 1 or 2 courses per semester
 - Electives may be taken at any time as long as pre-requisites are satisfied.
 - Any electives that do not appear on approved list **MUST** have your advisor's approval before registration.
 - Note pre-requisites when planning course of study.

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Advising Procedures

Call the CS office at 703-993-1530 and ask for the Graduate Program Specialist

- The Graduate Program Specialist will try to answer your question on the phone
 - MS CS and PhD CS – Ms Therese Michael
 - MS IS, MS ISA, and MS SWE – Mr. Ryan Lucas
- If question cannot be answered by the Graduate Program Specialist, it will be forwarded to a faculty advisor
 - The faculty advisor assigned to you individually is noted in the acceptance letter from the department.

You may also send a written query by fax, letter, or email

- Email: csadmin@cs.gmu.edu
- Phone: 703-993-1530 Fax: 703-993-1710
- Mailing Address: George Mason University
CS Department – MS 4A5
4400 University Drive
Fairfax, Virginia 22030-4444

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Miscellaneous

Various forms can be found in the department web page at <http://cs.gmu.edu>

- Labor Day-**University Closed, September 7**
- First day of classes is **August 31**
- Last day to drop with no tuition penalty **September 15**
- Last day to add classes is **September 15**
- Last day to drop classes **October 2**
- Columbus Day Recess –**October 12**
- Thanksgiving Recess – **November 25-November 29**
- Reading Day- **Not Scheduled**
- Please keep the department informed of any name, address or phone changes by sending email to csadmin@cs.gmu.edu

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Tuition Policy

Please register by Sunday, August 30, 2009 and pay tuition by 4:30pm Monday, August 31, 2009 to avoid late fees

New Tuition Payment Policy as of Fall 2005

On-time Registrations. Registrations are considered on-time prior to the first day of the semester. The payment due date for all on-time registrations is the first day of the semester. A late payment fee of 10% or \$250 (whichever is less) will be added to all balances from on-time registrations after the first day of classes.

Late Registrations. Registrations on or after the first day of the semester are late. A late registration fee of \$250 will be charged for all initial registrations occurring on or after the first day of the semester. Late registration fees are nonrefundable. The payment due date for all late registrations from **August 31 to September 15** is five business days after registration. A late payment fee of 10% or \$250 (whichever is less) will be added after the 5th business day. All late registrations require pre-payment of the \$250 late registration fee, plus all tuition and fees.

Registrations will not be canceled for nonpayment. Classes will not be cancelled for nonpayment. Students are responsible for dropping by the billing due date all classes, including waitlisted classes, they do not plan to complete.

Late Payments. A late payment fee of 10% or \$250 (whichever is less) would be added to unpaid registrations after the 5th business day. If the registration is late, the late payment fee is charged in addition to the late registration fee. The late payment fee applies to all registrations added and not paid within five business days.

Questions? Call Student Accounts at 993-2484.

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Honor Code Provisions

- The Honor Code of GMU deals specifically with:
 - Plagiarism
 - Cheating and attempted cheating
 - Lying and
 - Stealing
- Plagiarism encompasses the following:
 - Presenting as one's own the words, the work, or the opinions of someone else without proper acknowledgement. **This includes material appearing on the Internet**
 - Borrowing the sequence of ideas, the arrangement of material, or the pattern of thought of someone else without proper acknowledgement
 - Students are advised to check the Honor Code provisions on the syllabus of each class for further elaboration provided by the instructor

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CS Department Faculty

- 44 Full-time Faculty
 - 14 Full Professors
 - Barbara, J. Chen, DeJong, Gomaa (Chair), Kerschberg, Menasce (Associate Dean), Motro, Offutt, Pullen, Sibley, Setia, Sood, Tecuci, Wechsler
 - 13 Associate Professors
 - Ammann, Aydin, Brodsky, Carver, Domeniconi, Duric, Kosecka, Luke, Richards, Simon, P. Wang, White, Wijesekera
 - 12 Assistant Professors
 - Allbeck, S. Chen, Li, Lien, Lin, Malek, Rangwala, Shehu, Sousa, Stavrou, X. Wang, Zhong
 - 4 Instructional Faculty
 - Fleck, Heishman, T. Maddox, Nordstrom
 - 1 Visiting Faculty
 - Locasto
- 26 Adjunct Faculty

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Key Faculty for Graduate Programs

- Associate Chair for Graduate Studies
 - Professor Setia
- Graduate Coordinators for MS Programs
 - Graduate Coordinator for MS CS Program
 - Professor Duric
 - Graduate Coordinator for MSIS Program
 - Professor Kerschberg
 - Graduate Coordinator for MS-ISA Program
 - Professor Wijesekera
 - Graduate Coordinator for MS-SWE Program
 - Professor Offutt
- Your academic advisor

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Questions???

Individual Advising!!!

**Please go to
Computer Science Dept.
Engineering Building, Room 4300**